

**REMARKS**

Reconsideration is requested.

Claims 39-46 are pending.

The Section 102 rejection of claims 39-46 over Yoshikawa (U.S. Patent Application Publication No. 2002/0040728) is traversed. Reconsideration and withdrawal of the rejection are requested in view of the following.

The claims define a dye-sensitized solar cell comprising a transparent conductive layer, a porous semiconductor layer on which a dye sensitizer is adsorbed, a carrier transport layer, and a counter electrode, which are formed in this order on a transparent substrate, wherein the dye sensitizer-adsorbed porous semiconductor layer is subjected to a chemical treatment such that the dye sensitizer-adsorbed porous semiconductor layer is immersed in a solution comprising an alkylated imidazole salt, after a dye sensitizer is adsorbed on a porous semiconductor layer.

The Examiner asserts that the “process limitation” of the claims is “not given patentable weight”. See pages 3 and 10 of the Office Action dated October 29, 2010. The Examiner is understood therefore to believe that the following requirement of the claims need not be shown to exist in the cited art to allegedly establish a *prima facie* case of anticipation: “the dye sensitizer-adsorbed porous semiconductor layer is subjected to a chemical treatment such that the dye sensitizer-adsorbed porous semiconductor layer is immersed in a solution comprising an alkylated imidazole salt, after a dye sensitizer is adsorbed on a porous semiconductor layer”

The Examiner asserts that the requirement of the claims does not "add any structural limitations to the claimed device and thus are not given weight in the apparatus claim." See page 10 of the Office Action dated October 29, 2010.

The Examiner is requested to see the following passage from MPEP § 2113 for an explanation of the appropriate and accepted use of a "product-by-process" description in the claims:

The structure implied by the process steps should be considered when assessing the patentability of product-by-process claims over the prior art, especially where the product can only be defined by the process steps by which the product is made, or where the manufacturing process steps would be expected to impart distinctive structural characteristics to the final product. See, e.g., *In re Garnero*, 412 F.2d 276, 279, 162 USPQ 221, 223 (CCPA 1979) (holding "interbonded by interfusion" to limit structure of the claimed composite and noting that terms such as "welded," "intermixed," "ground in place," "press fitted," and "etched" are capable of construction as structural limitations.)

The present specification demonstrates, for example, in Example 3 and Comparative Example 3 (pages 22-24) the changes in physical characteristics of the claimed product when produced according to the requirements of the present claims. The process requirements of the claims provide a structurally distinct product and the absence of a description of a corresponding requirement in the cited art demonstrates novelty of the claimed invention over the cited art.

The cited art fails to teach each and every aspect of the claimed invention. The Examiner has improperly chosen aspects of the cited art in an attempt to find the claimed invention. Consideration of the following passage from *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1371 (Fed. Cir. 2008), is requested in this regard.

FUKUI, A. et al.  
Appl. No. 10/815,976  
Atty. Ref.: 900-495  
Response  
February 9, 2011

“In an anticipation rejection, ‘it is not enough that the prior art reference . . . includes multiple, distinct teachings that [an ordinary] artisan might somehow combine to achieve the claimed invention.’

Rather, the reference must

**‘clearly and unequivocally disclose the claimed [invention] or direct those skilled in the art to the [invention] without any need for picking, choosing, and combining various disclosures not directly related to each other by the teachings of the cited reference.’** Id. (quoting *In re Arkley*, 455 F.2d 586, 587 (CCPA 1972)).

Thus, while

‘[s]uch picking and choosing may be entirely proper in the making of a 103, obviousness rejection, . . . it has no place in the making of a 102, anticipation rejection.’ *Arkley*, 455 F.2d at 587-88.” (see *Ex Parte Zebedee et al.* Appeal No. 2010-6014 (BPAI))

The Federal Circuit in *Therasense, Inc. and Abbott Laboratories v. Becton, Dickinson and Company*, and *Nova Biomedical* (CAFC 2009) stated:

“The requirement that the prior art elements themselves be **‘arranged as in the claim’** means that **claims cannot be ‘treated . . . as mere catalogs of separate parts, in disregard of the part-to-part relationships set forth in the claims and that give the claims their meaning.’** *Lindemann Maschinenfabrik GMBH v. Am. Hoist & Derrick Co.*, 730 F.2d 1452, 1459 (Fed. Cir. 1984). ‘[U]nless a reference discloses within the **four corners** of the document not only all of the limitations claimed but also all of the limitations arranged or combined in the same way as recited in the claim, it cannot be said to prove prior invention of the thing claimed and, thus, cannot anticipate under 35 U.S.C. § 102.’ *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1371 (Fed. Cir. 2008).”

In view of the above, it is clear that even if the cited reference describes all of the features of a claim included in the subject patent application, an Examiner fails to

FUKUI, A. et al.  
Appl. No. 10/815,976  
Atty. Ref.: 900-495  
Response  
February 9, 2011

establish a *prima facie* case of anticipation if the claimed elements are not arranged as required by the claim. More specifically, if the cited elements relied upon are included in disparate disclosures of the cited reference which are “not directly related to each other,” the anticipation rejection is submitted to be deficient because impermissible “picking and choosing” has probably occurred (see *Arkley*).

The cited art teaches, in ¶[0053] an “after treatment method” wherein semiconductor fine particles are treated with a compound of formula (I) after the dye is adsorbed “thereon”. No mention is made in ¶[0053] of when a compound of formula (II) of the reference, which may include an imidazolium ion, is contacted with the semiconductor fine particles. Paragraph [0053] of the cited art also teaches a “simultaneous treatment method” wherein a compound of formula (I) of the cited art and the dye are adsorbed together on the fine particles, and a “pre-treatment method” where a compound of formula (I) of the cited art is adsorbed on the fine particles prior to the adsorption of the dye.

The Examples of the cited art teach inclusion of an imidazolium iodide only in the electrolysis solution during the production of the photoelectric conversion devices of ¶¶[0204] and [0228].

There is no specific teaching in the cited art of the presently claimed invention. Withdrawal of the Section 102 rejection is requested.

The claims are submitted to be in condition for allowance and a Notice to that effect is requested. The Examiner is requested to contact the undersigned, preferably by telephone, in the event anything further is required.

FUKUI, A. et al.  
Appl. No. 10/815,976  
Atty. Ref.: 900-495  
Response  
February 9, 2011

Respectfully submitted,

**NIXON & VANDERHYE P.C.**

By:                     /B. J. Sadoff/                      
                    B. J. Sadoff  
                    Reg. No. 36,663

BJS:  
901 North Glebe Road, 11th Floor  
Arlington, VA 22203-1808  
Telephone: (703) 816-4000  
Facsimile: (703) 816-4100